Recommendations

It is a given that no experiment is perfect the first time. If we were to do this experiment again in the future, we would make a few alterations.

1. First and foremost, we would give ourselves more time to complete the experiment. This would allow for any necessary changes to be made expediently and would allow more fruit fly generations to reproduce. With the experiment running over a longer period of time, we get more opportunities for data collection. The more data we can collect, the stronger our data becomes and the more confidence we can have in making claims.
2. Secondly, a larger habitat is necessary. Towards the end of our experiment, the vials became contaminated with the dead flies. Basically, the quickly reproducing flies overpopulated their surroundings, leading to the death of numerous flies. With a larger habitat, the experiment can run longer and we can obtain more results (see number one).
3. Any experiment would benefit from more samples, especially with the unpredictable reproducing nature of the flies. If, instead of using five samples of each coil category, we used ten, our data would be much stronger, and more resistant to some of the outliers that we experienced. We could then make more claims with more certainty.
4. The ability to acquire a gauss meter would be extremely beneficial to our experiment. This would allow us to measure the exact intensity of the electromagnetic fields, not just the amps running through the setup.
5. Finally, we recommend that before one begins any experiment dealing with circuitry, one should sit down with someone that knows what they are doing and map out the setup. This would ensure the circuitry to be done properly the first time. We should have checked the amperage running through the wires once we got the experiment set up the first time. This would have allowed us to fix our setup earlier and subsequently increased our data yield.